

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017474**Date Inspected:** 19-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Weld Lab

This QA Inspector observed the welding of Procedure Qualification Record (PQR) HP2010117-2 using the Flux Cored Arc Welding (FCAW) process in the 1G (flat) position using ESAB E71T-1M Dual Shield 70 Ultra Plus electrode. The electrode is 1.4mm in diameter, Lot # 89926. The Welding Procedure Specification (WPS) followed was PWPS-B-T-2231. The test plate configuration was a Complete Joint Penetration (CJP) Single V Groove weld Butt Joint, 25mm in thickness and 700mm in length using a 10mm x 105mm backing bar. The test plate material is identified as A709 GR345. Thirteen (13) weld passes were used to complete the groove weld. The welder was identified as Zhou Bin.

The Following personnel were present during PQR qualification:

ABF-Steve Lawton, Peter Ferguson

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OBG Trial Assembly Yard

Segment 10AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as OBE10A-008, 009, Arc Plate. The welder is identified as #050289 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as OBE10A-006, 007, Arc Plate. The welder is identified as #050289 and was observed welding in the 3F (vertical) position using approved Welding Procedure Specification WPS-B-P-2113-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBE10A-010, Arc Plate. The welder is identified as #050289 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 11AE/11BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBE11B-003, Bottom Plate transverse splice. The welder is identified as #044515 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for WR16067, UT repair.

Segment 11AE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as SEG066C-007, 008, Longitudinal Diaphragm to Bottom Plate. The welder is identified as #057353 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

Segment 11BE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as SEG066C-044, 045, Longitudinal Diaphragm to Bottom Plate. The welder is identified as #057353 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as An Qing Xiang and Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 10AW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing on the FL3 web to flange hold back

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CJP weld at panel point 88.

Segment 10AE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the FL3 bottom panel I-rib stiffener hold back fillet welds at panel points 87-88.

Cross Beam 13

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Panel to Bottom panel hold back CJP weld at panel point 86, north and south end.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer
